IN THE CLAIMS

1. (original) A seal clamp assembly for sealing an opening in a piping system, said seal clamp comprising:

a base comprising a first side, a second side and an aperture extending therethrough from said first side to said second side;

a brace coupled to said base, said brace comprising a distal pad hingedly coupled to a distal end portion of said brace;

a spring bridge coupled to said base first side, said bridge comprising a substantially rectangular U-shaped frame and an aperture extending through said spring bridge frame such that said spring bridge aperture is in substantial lineal alignment with said base aperture; and

a clamping assembly coupled to a proximate end portion of said brace.

2. (original) A seal clamp assembly in accordance with Claim 1 wherein said clamping assembly comprises:

a shaft comprising a first end and a second end, said shaft first end extending through said base aperture and said shaft second end extending through said spring bridge aperture;

a collar circumscribing and fixedly attached to said shaft, said collar positioned between said base first side and said spring bridge frame such that a first axial face of said collar contacts said base; and

a spring circumscribing said shaft and positioned between said collar and said spring bridge.

3. (original) A seal clamp assembly in accordance with Claim 1 wherein said brace further comprises a middle pad fixedly attached to an inner circumference of said brace between said base and said distal pad.

4. (original) A seal clamp assembly in accordance with Claim 3 wherein said middle pad is fixedly attached to an inner circumference of said brace approximately midway between said base and said distal pad.

5. (original) A seal clamp assembly in accordance with Claim 1 wherein said brace further comprises an arcuate shape.

6. (original) A seal clamp assembly in accordance with Claim 2 wherein said clamping assembly comprises a first extended position wherein said clamping assembly is biased by said spring such that said collar first axial face contacts said base, said shaft first end extends through said base aperture by a first distance, and said shaft second end extends through said spring bridge aperture by a second distance, said first distance being greater than said second distance.

7. (original) A seal clamp assembly in accordance with Claim 6 wherein said clamping assembly comprises a second retracted position wherein said shaft first end extends through said base aperture by a first distance and said shaft second end extends through said spring bridge aperture by a second distance, said first distance being less than said second distance.

8. (original) A seal clamp installation tool for remotely attaching a seal clamp assembly to a pipe, the seal clamp assembly comprising a collar, said installation tool comprising;

a first plate comprising a first face, a second face opposite said first face, and an aperture extending through said first plate from said first face to said second face;

a pole adapter extending perpendicularly from and fixedly attached to said first plate first face;

a cylinder actuator comprising a body and a cylinder pole extending perpendicularly from an axial face of said body, said cylinder actuator replacably attached to said first plate first face such that said cylinder pole extends through said first plate aperture; and

a second plate comprising a first face, said first face fixedly attached to a distal end of said cylinder pole.

9. (original) A seal clamp installation tool in accordance with Claim 8 wherein said pole adapter comprises a tubular body comprising a first end portion and a second end portion, said first end portion comprising a plurality of J-shaped channels configured to engage a tool manipulator.

10. (original) A seal clamp installation tool in accordance with Claim 9 wherein said pole adapter second end portion is fixedly attached to a first face of a first plate.

11. (original) A seal clamp installation tool in accordance with Claim 9 wherein said pole adapter tubular body comprises an aperture extending radially through said pole adapter body.

12. (original) A seal clamp installation tool in accordance with Claim 8 wherein said first plate second face comprises at least one stiffening member extending perpendicularly from said second face.

13. (original) A seal clamp installation tool in accordance with Claim 8 wherein said second plate further comprises a second face opposite said first face, said first face and said second face comprising a generally rectangular-shaped perimeter with a U-shaped aperture extending through said second plate.

14. (original) A seal clamp installation tool in accordance with Claim 8 wherein said lower plate is configured to operatively engage a seal clamp collar.

15. (original) A seal clamp installation tool in accordance with Claim 8 wherein said cylinder actuator is operative between a first retracted position and a second extended position.

16. (original) A seal clamp assembly comprising:

a first half-shell comprising a first semi-cylindrical body; and

a second half-shell comprising a second semi-cylindrical body;

said first semi-cylindrical body comprising:

a concave interior surface;

a convex exterior surface;

a plurality of engagement tabs; and

a plurality of seals;

said second semi-cylindrical body comprising:

a concave interior surface;

a convex exterior surface;

a plurality of actuating cylinders coupled to said exterior face, each said actuating cylinder comprising a cylinder extension comprising a shaft and an engagement disc coupled to an axial face of said shaft; and

a plurality of seals.

17. (original) A seal clamp assembly in accordance with Claim 16 wherein each said engagement tab comprises a substantially rectangular body with a U-shaped aperture extending therethrough, said tab fixedly coupled to said first semi-cylindrical body exterior surface.

18. (original) A seal clamp assembly in accordance with Claim 16 wherein each said actuating cylinder comprises:

a pivoting cylinder mounting tab coupled to said second semi-cylindrical body exterior surface;

a pivoting cylinder housing pivotably coupled to said pivoting cylinder mounting tab;

a hydraulic spring cylinder removably coupled to said pivoting cylinder housing; and

a cylinder rotation rod fixedly attached to said pivoting cylinder housing, each said actuating cylinder configured to be in substantial alignment with a corresponding engagement tab.

19. (original) A seal clamp assembly in accordance with Claim 18 wherein said pivoting cylinder housing is rotatable between a first engaged position and a second disengaged position.

20. (original) A seal clamp assembly in accordance with Claim 18 wherein when a pivoting cylinder housing is in the engaged position, said cylinder extension is aligned with said corresponding engagement tab.

21. (original) A seal clamp assembly in accordance with Claim 18 wherein when a pivoting cylinder housing is in the disengaged position, said pivoting cylinder housing is rotated laterally away from said second semi-cylindrical body exterior surface such that a cylinder extension is not aligned with said corresponding engagement tab.

22. (original) A seal clamp assembly in accordance with Claim 16 wherein each said actuating cylinder is operable between a first extended position and a second retracted position.

23. (original) A method of sealing an opening in a pipe, said method comprising:

providing a seal clamp assembly comprising a base comprising a first side, a second side and an aperture extending therethrough; a brace coupled to the base, the brace comprising a distal pad hingedly coupled to a distal end portion of the brace; a spring bridge coupled to the base first side, the bridge comprising a substantially rectangular U-shaped frame and an aperture extending through the spring bridge frame such that the spring bridge aperture is

in substantial lineal alignment with said base aperture; and a clamping assembly coupled to a proximate end portion of said brace;

providing a seal clamp installation tool comprising a first plate comprising opposing first and second faces and an aperture extending therethrough; a pole adapter extending perpendicularly from and fixedly attached to the first plate first face; a cylinder actuator comprising a body and a cylinder pole extending perpendicularly from an axial face of the body, the cylinder actuator replacably attached to the first plate first face such that the cylinder pole extends through the first plate aperture; and a second plate comprising a first face, the first face fixedly attached to a distal end of the cylinder pole;

engaging the seal clamp installation tool to the seal clamp assembly;

actuating the seal clamp installation tool cylinder actuator to a retracted position;

positioning the seal clamp assembly on the pipe; and

actuating the seal clamp installation tool cylinder actuator to an extended position to secure the seal clamp assembly to the pipe.

24. (original) A method in accordance with Claim 23 wherein engaging the seal clamp installation tool to the seal clamp assembly comprises positioning the seal clamp installation tool lower plate such that the U-shaped aperture in the lower plate partially circumscribes the collar of the seal clamp.

25. (original) A method in accordance with Claim 23 wherein actuating the actuating cylinder into a retracted position moves the seal clamp clamping assembly into a retracted position.

26. (original) A method in accordance with Claim 23 wherein actuating the seal clamp installation tool cylinder actuator to an extended position moves the seal clamp clamping assembly into an extended position.

27. (original) A method in accordance with Claim 23 wherein positioning the seal clamp assembly on the pipe comprises positioning the seal clamp assembly such that the seal clamp seal is substantially centered over the opening in the pipe, a middle pad coupled to the brace is in substantial contact with the pipe and the distal pad is in substantial contact with the pipe.

28. (new) A seal clamp assembly comprising:

a first half-shell comprising a first semi-cylindrical body; and

a second half-shell comprising a second semi-cylindrical body;

said first semi-cylindrical body comprising:

a concave interior surface;

a convex exterior surface;

a first longitudinal edge face;

a second longitudinal edge face;

a plurality of engagement tabs; and

a plurality of seals coupled to at least one of said first body concave interior surface, said first edge face, and said second edge face;

said second semi-cylindrical body comprising:

a concave interior surface;

a convex exterior surface;

a third longitudinal edge face;

a fourth longitudinal edge face;

a plurality of actuating cylinders coupled to said exterior face, each said actuating cylinder comprising a cylinder extension comprising a shaft and an engagement disc coupled to an axial face of said shaft; and

a plurality of seals coupled to at least one of said second body interior concave surface, said third edge face, and said fourth edge face .

29. (new) A seal clamp assembly in accordance with Claim 28 wherein each said engagement tab comprises a substantially rectangular body with a U-shaped aperture extending therethrough, said tab fixedly coupled to said first semi-cylindrical body exterior surface.

30. (new) A seal clamp assembly in accordance with Claim 28 wherein each said actuating cylinder comprises:

a pivoting cylinder mounting tab coupled to said second semi-cylindrical body exterior surface;

a pivoting cylinder housing pivotably coupled to said pivoting cylinder mounting tab;

a hydraulic spring cylinder removably coupled to said pivoting cylinder housing; and

a cylinder rotation rod fixedly attached to said pivoting cylinder housing, each said actuating cylinder configured to be in substantial alignment with a corresponding engagement tab.

31. (new) A seal clamp assembly in accordance with Claim 30 wherein said pivoting cylinder housing is rotatable between a first engaged position and a second disengaged position.

32. (new) A seal clamp assembly in accordance with Claim 30 wherein when a pivoting cylinder housing is in the engaged position, said cylinder extension is aligned with said corresponding engagement tab.

33. (new) A seal clamp assembly in accordance with Claim 30 wherein when a pivoting cylinder housing is in the disengaged position, said pivoting cylinder housing is rotated laterally away from said second semi-cylindrical body exterior surface such that a cylinder extension is not aligned with said corresponding engagement tab.

34. (new) A seal clamp assembly in accordance with Claim 28 wherein each said actuating cylinder is operable between a first extended position and a second retracted position.